



Insights from past millennia into climatic impacts on human health and survival

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Abstract:

Climate change poses threats to human health, safety, and survival via weather extremes and climatic impacts on food yields, fresh water, infectious diseases, conflict, and displacement. Paradoxically, these risks to health are neither widely nor fully recognized. Historical experiences of diverse societies experiencing climatic changes, spanning multicentury to single-year duration, provide insights into population health vulnerability—even though most climatic changes were considerably less than those anticipated this century and beyond. Historical experience indicates the following. (i) Long-term climate changes have often destabilized civilizations, typically via food shortages, consequent hunger, disease, and unrest. (ii) Medium-term climatic adversity has frequently caused similar health, social, and sometimes political consequences. (iii) Infectious disease epidemics have often occurred in association with briefer episodes of temperature shifts, food shortages, impoverishment, and social disruption. (iv) Societies have often learnt to cope (despite hardship for some groups) with recurring shorter-term (decadal to multiyear) regional climatic cycles (e.g., El Nino Southern Oscillation)—except when extreme phases occur. (v) The drought-famine-starvation nexus has been the main, recurring, serious threat to health. Warming this century is not only likely to greatly exceed the Holocene's natural multidecadal temperature fluctuations but to occur faster. Along with greater climatic variability, models project an increased geographic range and severity of droughts. Modern societies, although larger, better resourced, and more interconnected than past societies, are less flexible, more infrastructure-dependent, densely populated, and hence are vulnerable. Adverse historical climate-related health experiences underscore the case for abating human-induced climate change.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3324023>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Extreme Weather Event, Food/Water Security, Human Conflict/Displacement, Temperature

Extreme Weather Event: Drought, Flooding

Food/Water Security: Agricultural Productivity, Food Access/Distribution

Temperature: Extreme Heat

Climate Change and Human Health Literature Portal

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease, Malnutrition/Undernutrition, Morbidity/Mortality

Infectious Disease: Vectorborne Disease, Zoonotic Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Yellow Fever

Zoonotic Disease: Other Zoonotic Disease

Zoonotic Disease (other): Plague

Resource Type:

format or standard characteristic of resource

Review

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

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Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

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